

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of the claims in this application.

Listing of the Claims:

Claims 1 – 10. (Canceled)

11. (Previously presented) A biodegradable polymer composition consisting essentially of the following in percent by weight:

a) 8 to 80% of a starch modified to include a hydroxyalkyl C₂₋₆ group or modified by reaction with an anhydride of a carboxylic acid,

b) 4 to 11% of a water soluble polymer selected from polyvinylacetate, and polyvinyl alcohol or a mixture thereof,

c) up to 12% added water,

d) 0 to 10% of a polyol plasticizer,

e) 0.1 to 1.5% of a C₁₂₋₂₂ fatty acid or salt,

f) the balance being a natural starch.

12. (Previously presented) A biodegradable polymer as claimed in claim 11 wherein component e) comprises stearic acid or a salt thereof.

13. (Previously presented) A biodegradable polymer as claimed in claim 11 wherein component b) comprises a polyvinyl alcohol.

14. (Previously presented) A biodegradable polymer as claimed in claim 11 wherein the polyol plasticizer comprises glycerol.

15. (Previously presented) A biodegradable polymer as claimed in claim 11 wherein the polyol plasticizer content is zero and added water is from 10 to 12%.

16. (Previously presented) A biodegradable polymer as claimed in claim wherein the fatty acid is stearic acid or a salt thereof.

17. (Previously presented) A biodegradable polymer as claimed in claim 21 comprising polyvinyl alcohol.

18. (Withdrawn) A process for forming a biodegradable polymer according to claim 11 comprising:

- a) forming a mixture of starch, a modified starch, a water soluble polymer or copolymer containing vinyl alcohols units, up to 20% of added water and a polyol plasticizer and 0.4 to 1.5% by weight of a C₁₂₋₂₂ fatty acid or salt;
- b) working the mixture and forming a melt within the temperature range of 130°C to 160°C, and
- c) reducing the temperature and further working the mixture and then extruding the mixture or injecting the mixture into a mold at a temperature of 85°C to 105°C without the need to remove water.

19. (Withdrawn) A process for forming products as claimed in claim 18 wherein the polymer is extruded into a sheet and subsequently thermoformed into a packaging tray.

20. (Previously presented) A biodegradable polymer suitable for use in thermoforming rigid packaging products, said polymer consisting essentially of the following in percent by weight: a) 8-80% starch modified to include a hydroxyalkyl C₂₋₆ group or modified by reaction with an anhydride of a carboxylic acid; b) 4-11% of a water soluble polymer comprising polyvinylacetate, polyvinyl alcohol or a mixture thereof; c) up to 12% added water; d) 0.4 to 1.2% of a C₁₂₋₂₂ fatty acid or salt.

21. (Currently amended) A biodegradable polymer as claimed in claim 20, further comprising c) 0- 8.716% of a polyol plasticizer.

22. (Previously presented) A polymer composition that has been adapted to form a film, said polymer composition consisting essentially of in percent by weight:

- a) 8 to 80% of a starch modified to include a hydroxyalkyl C_{2-6} group or modified by reaction with an anhydride of a carboxylic acid
- b) 4 to 11% of a water soluble polymer selected from polyvinyl acetate, polyvinyl alcohol and copolymers of ethylene and vinyl alcohol
- c) 10 to 16% of a polyol plasticizer
- d) up to 12% added water
- e) 0.1 to 1.5% of a C_{12-22} fatty acid or salt
- f) the balance being a natural starch.

23. (Previously presented) A composition as claimed in claim 22 wherein component e) comprises stearic acid.

24. (Previously presented) A composition as claimed in claim 22 wherein component b) comprises a polyvinyl alcohol.

25. (Previously presented) A composition as claimed in claim 23 wherein component b) comprises a polyvinyl alcohol.

Claims 26 - 53. (Canceled)